

Application No. 09/990,754

AMENDMENT TO THE CLAIMS

1. (Currently Amended) A method comprising:
identifying a processing capability of a remote device; and
slowing an effective data rate within a communication channel
with the remote device based at least in part on the processing
capability of the remote device, wherein slowing comprises injecting
control elements.

2. (Previously Presented) A method according to claim 1, wherein
identifying the processing capability of the remote device comprises:
sending a capability request; and
receiving a response to the request denoting at least the
processing capability of the remote device.

3. (Previously Presented) A method according to claim 1, wherein
identifying the processing capability of the remote device comprises:
receiving an indication from the remote device denoting at least
the processing capability of the remote device.

4. (Previously Presented) A method according to claim 3, wherein
the indication also denotes a communication capability of the remote
device.

5. (Currently Amended) A method according to claim [[4]] 1,
further comprising:
establishing at least one virtual channel within the
communication channel, each virtual channel having a data rate less
than that of a maximum transmission rate of the communication
channel and wherein the data rate of each virtual channel is based, at

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least in part, on the identified processing capability of the remote device.

6. (Cancelled)

7. (Previously Presented) A method according to claim 1, wherein at least the processing capability of the remote device is obtained through auto-negotiation.

8. (Currently Amended) A method ~~according to claim 1 comprising:~~ identifying a processing capability of a remote device; and slowing an effective data rate within a communication channel with the remote device based at least in part on the processing capability of the remote device, wherein slowing the effective data rate comprises:

computing a ratio of processing capability of the remote device to a data rate of the communication channel; and

selectively inserting a number of frames of idle control elements between successive frames of substantive content based, at least in part, on the computed ratio.

9. (Previously Presented) A method according to claim 8, wherein the number of frames inserted reduces a rate at which substantive frames are received by the remote device to a level commensurate with the processing capability of the remote device.

10. (Currently Amended) An apparatus comprising:

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control logic[[,]] to identify a processing capability of a remote network device; and

a media access controller (MAC), responsive to the control logic, to selectively reduce an effective data rate of a communication channel with the remote network device based, at least in part, on the identified processing capability of the remote network device, wherein the MAC is to selectively reduce the effective data rate by selectively injecting control elements.

11. (Previously Presented) An apparatus according to claim 10, wherein the control logic sends a capability request to the remote device and receives a response to the request denoting at least the processing capability of the remote device.
12. (Previously Presented) An apparatus according to claim 10, wherein the control logic receives a broadcast indication from the remote device denoting at least the processing capability of the remote device.
13. (Cancelled)
14. (Previously Presented) An apparatus according to claim 10, wherein the MAC selectively inserts a number of frames comprising idle control elements between successive frames of substantive content associated with a communication with the remote device to reduce the effective data rate of the communication channel.
15. (Currently Amended) An apparatus comprising: according to claim 14

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control logic to identify a processing capability of a remote network device; and

a media access controller (MAC), responsive to the control logic, to selectively reduce an effective data rate of a communication channel with the remote network device based, at least in part, on the identified processing capability of the remote network device, wherein the MAC selectively inserts a number of frames comprising idle control elements between successive frames of substantive content associated with a communication with the remote device to reduce the effective data rate of the communication channel and wherein the MAC computes a ratio of the processing capability to the data rate of the communication channel to determine the number of frames comprising idle control elements.

16. (Currently Amended) A computer-readable storage medium comprising content which, when executed by an accessing computing device, causes the device to implement a scalable network interface to identify a processing capability of a remote network device, and to selectively reduce an effective data rate of a communication channel between the accessing computing device and the remote network device based, at least in part, on the processing capability of the remote network device, wherein the device is to selectively reduce the data rate by injecting control elements.

17. (Currently Amended) A computer-readable storage medium according to claim 16, wherein the scalable network interface reduces the effective data rate of the communication channel by interjecting a number of frames comprising idle control elements between successive

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frames of substantive content associated with a communication session between the accessing computing device and the remote network device.

18. (Currently Amended) A computer-readable storage medium according to claim 17, wherein the scalable network interface computes the number of frames of idle control elements from a ratio of the identified processing capability of the remote network device to a data rate of the communication channel.

19. (Original) The method of Claim 1, wherein the communication channel comprises an Ethernet compatible communications channel.

20. (Original) The method of Claim 1, wherein the slowing the effective data rate within a communication channel comprises injecting idle control elements between successive frames of substantive content.

21. (Original) An apparatus of Claim 10, wherein the communication channel comprises an Ethernet compatible communications channel.

22. (Original) An apparatus of Claim 10, wherein the MAC to selectively reduce the effective data rate within a communication channel is to inject idle control elements between successive frames of substantive content.

23. (Currently Amended) An apparatus of ~~Claim 10, further comprising:~~

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control logic to identify a processing capability of a remote network device;

a media access controller (MAC), responsive to the control logic, to selectively reduce an effective data rate of a communication channel with the remote network device based, at least in part, on the identified processing capability of the remote network device; and

a plurality of MACs, wherein the plurality of MACs includes the MAC and a second MAC, wherein the MAC and the second MAC are capable of transmission to the remote network device at different rates, wherein the control logic is to:

select a MAC for use in a communication channel with the remote network device based in part on the processing capability of the remote network device being approximately equal to the transmission rate of the selected MAC; and

if the selected MAC having a transmission rate approximately equal to the processing capability of the remote network device is not available, selecting a MAC having a transmission rate higher than the processing capability of the remote network device and providing a virtual channel within the transmission capabilities of the higher transmission rate MAC to provide the communication channel with the remote network device based at least in part on the processing capability.

24. (Original) A system comprising:

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first and second network elements capable of intercommunicating, wherein the second network element comprises:

logic to identify receiving rate capability of the first network element; and

logic to selectively reduce a data rate within a communication channel with the first network element based, at least in part, on the identified processing capability of the first network element,
wherein the logic to selectively reduce a data rate is to reduce the data rate by injecting control elements.

25. (Original) The system of Claim 24, wherein the first network element includes a media access controller.

26. (Original) The system of Claim 24, wherein the first network element includes a media access controller capable of processing transmissions at a speed less than that which the second network element is capable of transmitting.

27. (Original) The system of Claim 24, wherein the first network element comprises:

logic to identify receiving rate capability of the second network element; and

logic to selectively reduce a data rate within the communication channel with the second network element based, at least in part, on the identified processing capability of the second network element.

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28. (Currently Amended) The system of Claim 24, wherein
the first and second network elements apply auto-
negotiation to determine an acceptable transmission rate for the
communication session; and
~~the logic to slow an effective transmission rate is to inject
control elements based on the acceptable transmission rate.~~
29. (New) The apparatus of Claim 10, further comprising:
a plurality of MACs, wherein the plurality of MACs includes
the MAC and at least one other MAC, wherein the MAC and the
at least one other MAC are each capable of transmitting to the
remote network device, wherein the control logic is to:
select at least one of the plurality of MACs for
use in a communication channel with the remote
network device, wherein a combined transmission
rate of the selected at least one of the plurality of
MACs is approximately equal to a receiving capability
of the remote network device; and
select one of the plurality of MACs for use in a
communication channel with the remote network
device, wherein the selected one of the plurality of
MACs is capable of a transmission rate higher than
the receiving capability of the remote network device
and wherein the selected one of the plurality of MACs
provides a virtual channel to provide the
communication channel with the remote network
device.